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II. Papers

The Three Age System in English: new translations of the founding documents

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Introduction

The Stone – Bronze – Iron framework for ordering archaeological artifacts and epochs emerged in Denmark and southern Sweden in the years 1835–43, and is justly considered one of the defining developments in the origins of archaeology. Some of the crucial documents appeared in English in the mid-19th century. Anglophone historians of archaeology make considerable use of these, but like the Scandinavian originals they are now scarce and often cannot be tracked down by the more general reader.

It is not generally appreciated that the English versions of these founding texts sometimes differ quite substantially from the Scandinavian originals. Some other important texts have never been translated into English at all. These factors mean that the anglophone understanding of the early history of the Three Age System is incomplete. The following discussion is part of a larger project which has translated all the major works and their precursors, and will present these alongside a consideration of the major developments (Rowley-Conwy in prep.). The author is half British, half Scandinavian, is fluent in Danish, and thus has a good reading knowledge of Swedish. All translations below from original Scandinavian sources are, unless otherwise indicated, by the author. Where English translations already exist, I have not consulted these until after the completion of my own.

Before 1835 the conceptual means of ordering the Scandinavian pre-Christian period (i.e. pre-AD 800) were strictly limited. In Rasmus Nyerup's expressive phrase, 'everything from the earliest heathen period hangs before us as if in a thick fog, in an unmeasurable period of time'. This did not however imply the lengths of time we are now used to – he continues by saying 'we know it is older than Christendom, but if by a few years or a few hundred years – even maybe over a thousand years – older, is sheer guesswork and at best only likely hypotheses' (Nyerup 1806:1). This conception reaches no further back than the last centuries BC. Some chronologies were rather longer; the major 18th century historian P. F. Suhm placed the Noachian Flood in 2348 BC, the Tower of Babel 101 years later. From Ararat (where Noah's Ark landed) to Babel was 90 German miles. Migrating at the same rate of 90 miles every 101 years, tribes dispersing from Babel would reach Finland in 1397 BC, Jutland in 1267 BC. This started Suhm's 'dark' age, of which almost nothing was known; his 'fabulous' age commenced in 70 BC, with the conquest of Scandinavia by Odin, whom Suhm accepted as an historical figure (Suhm 1802; Jensen 1970).

By 1843 the situation had been transformed. It was now possible to state that the earliest inhabitants were stone age peoples who did not know the use of metals; that they probably lived before the present era of beech woodland, perhaps when oak forest covered Denmark;

and that they were a brachycephalic (round-skulled) people who lived by hunting, fishing and gathering – to be followed by bronze age dolichocephalic (long-skulled) agriculturalists. The generation and integration of these relative chronologies was due to three remarkable men: C. J. Thomsen, J. J. S. Steenstrup, and Sven Nilsson – and none was based on dubious early historical writings. Their scheme was adopted and publicised by J. J. A. Worsaae. These four writers are discussed here.

C. J. Thomsen

Three works by Thomsen have been translated:

- 1831. *Om nordiske Oldager og deres Opbevaring* [On Scandinavian Antiquities and their Preservation]. Copenhagen: Kgl. Nordiske Oldskriftsselskab.
- 1832. Kortfattet Udsigt over nordiske Steenoldsager fra den hedenske Tid [Brief review of Scandinavian antiquities of stone from the heathen period]. *Nordisk Tidsskrift for Oldkyndighed* 1:421–439.
- 1836. Kortfattet Udsigt over Mindesmærker og Oldsager fra Nordens Oldtid [Brief review of the monuments and antiquities from ancient times in Scandinavia]. In *Ledetraad til Nordisk Oldkyndighed* [Guide to Scandinavian Archaeology], 27–90. Copenhagen: Kgl. Nordisk Oldskriftsselskab.

The first is a 13-page pamphlet circulated to Danish schoolteachers, containing instructions on how antiquities should be dealt with when reported to such people. The second is a regular journal article discussing stone tools, intended for an academic readership. The third is Thomsen's major publication, which appears as the second chapter in the *Ledetraad* volume; the first chapter is by N. M. Petersen, entitled 'Den oldnordisk Literaturs Omfang og Vigtighed [The extent and importance of ancient Scandinavian literature]'.

Thomsen was not happy with *Ledetraad*. Petersen's chapter, though shorter, was more academic and rather grandiose in tone. Thomsen however misunderstood his brief; in a letter to T. H. Erslew in 1850 he wrote that he was under the impression that he was to produce a larger version of his 1831 pamphlet: 'It was suggested to me that I expand this short pamphlet and that it would be supplemented with illustrations, so I assumed that this publication like the earlier one was to be distributed among people living out in the country, so I tried to be as straightforward and clear in my presentation as I could be, but I found to my surprise that a section on the extent and importance of ancient Scandinavian literature had been added, in a *completely different style* to what I had written' (quoted in C. S. Petersen 1938:59, original emphasis); as early as 2nd April 1837 he had expressed similar reservations in a letter to Sven Nilsson (ibid.). Thomsen's intention to simplify things for a less academic audience is seen in his section on stone tools: the section headings mostly follow those in his more academic 1832 paper, but the section contents are much abbreviated and simplified. *Ledetraad* was never intended as the trail-blazing publication of Thomsen's scheme.

Ledetraad was translated into German in 1837 under the title *Leitfaden zur Nordischen Alterthumskunde*, but had to wait until 1848 for translation into English under the auspices of the Earl of Ellesmere (Ellesmere 1848). Ellesmere was the nephew of the eighth Earl of Bridgewater, sponsor of the Bridgewater treatises, a series of monographs which included among others Buckland's *Geology and Mineralogy* (Buckland 1836). He held office in a variety of learned societies, was a member of the Royal Society of Northern Antiquaries, and produced what the *Dictionary of National Biography* terms 'poor translations' of works by

Goethe and Schiller. Various points in Ellesmere's book however make it clear that he based his work on the original Danish, not the German, version. Some of Ellesmere's interpolations (see below) post-date both *Ledetraad* and *Leitfaden*. One other indication comes from the list of medieval musical instruments given by Ellesmere (1848:74) – 'trumpets, flutes, hurdy-gurdies, harps, lutes, viols, kettledrums, drums'. Two of these are minor mistranslations, Thomsen's original list (p. 65) reading 'trumpets, flutes, dulcimers [*hakkebrætte*], harps, lutes, fiddles [*fioler*], kettledrums, drums'. The corresponding section in *Leitfaden* (p. 66) reads 'Trompeten, Flöten, Harfen, Hackbretter, Lauten, Violinen, Pauken, Trommeln' – transposing harps and dulcimers; crucially, Ellesmere follows the Danish word order, with hurdy gurdies (really dulcimers) preceding harps.

Ellesmere's volume differs from the original *Ledetraad* in several respects. His introduction, as he notes (Ellesmere 1848:xvi), comes not from *Ledetraad*, but from another volume published in 1836, entitled *Report Addressed by the Royal Society of Northern Antiquaries to its British and American Readers* (Oldskriftsselskabet 1836). However, he reproduces only part this, breaking off in the middle of a paragraph when the discussion is about to consider runic inscriptions in Britain (Oldskriftsselskabet 1836:x).

Ellesmere (1848:xvi) states that he himself undertook the first part of the translation of *Ledetraad*, but that it was completed by another unnamed individual. I have not yet established who this was, but it may be of importance due to a significant change in emphasis in the course of Ellesmere's book. During the 1840s the Three Age System had barely begun to be accepted in Britain (Morse 1999), and quite early in Ellesmere's book a short section is added to a description of touchstones, presumably by Ellesmere himself, apparently diminishing the significance of the periodisation (this interpolation does not appear in Thomsen's longer 1832 description either):

Thomsen 1836, p. 40	Ellesmere 1848, p. 41
17. <i>Touchstones</i> , made of fine black slate, made to hang probably from ones belt alongside other items.	<p>17. TOUCHSTONES, as they have been denominated, made out of a black close-grained species of slate, and apparently designed to be worn pendent. <i>They are now often met with in very ancient graves, in which no traces of metal are discernible, for which reason the above appellation may not be the most appropriate.</i></p> <p><i>It is probable that articles of stone may have been used at a somewhat later period by less wealthy individuals. Stone anvils are believed to have been found on which articles of metal had been hammered, and which are consequently to be referred to a later period.</i></p>

Thomsen's discussion of periodisation does not appear until pp. 57–63 of *Ledetraad*. The corresponding section in Ellesmere's book (pp. 63–71) contains addenda intended to *increase* the force of the periodisation, not diminish it as in the above. Perhaps the unnamed second translator had taken over and was more sympathetic to Thomsen's scheme. Here are two examples:

Thomsen 1836, p. 59	Ellesmere 1848, p. 66
If one assumes that people acquired or copied objects from other countries, it follows that they must have been in use in those countries at that time. When the connections were broken or existed only as a result of migrations, later discoveries and improvements could easily remain unknown...	If we assume that articles were obtained from other countries, or that they were imitated, it follows as a matter of course that they must at that time have been in use in those countries, <i>and it would be absurd to suppose that the Germans should have adopted anything after the Romans, or received any thing from them, the use of which had been long discontinued by the latter.</i> On the other hand later discoveries and improvements might, when international connexions were dissevered...

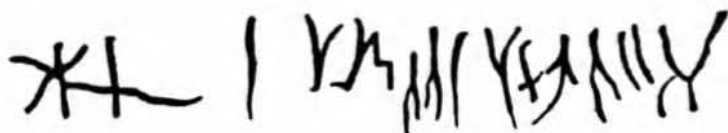
on the ornamentation of metal objects in the bronze age:

Thomsen 1836, p. 62	Ellesmere 1848, p. 69
In the <i>bronze period</i> decoration is in contrast fully developed. It does not seem to have been changed very often...	In the AGE OF BRONZE, on the other hand, we find the ornaments in a state of perfect development, <i>and of so marked a character as to furnish a criterion which in most cases will enable us with tolerable certainty to determine the articles belonging to that age, and more especially to distinguish them from such as are referable to a subsequent period.</i> They do not indeed appear to have been often changed...

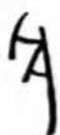
These minor addenda reinforce Thomsen's scheme. Elsewhere, however, Ellesmere and/or the other translator moved well away from Thomsen's text. The section on knives and lance points (Ellesmere 1848:36–37) is substantially enlarged. In part this discussion is drawn directly from Thomsen's 1832 article (p. 427); there then follows a description conflating Thomsen's 1832 categories (pp. 427–428). There then appears an illustration of a remarkable flint sickle (Ellesmere 1848:37) found after the publication of *Ledetraad*. In the 1840s the Royal Society of Northern Antiquaries was publishing several periodicals in addition to its principal *Annaler for nordisk Oldkyndighed og Historie* (Annals of Scandinavian Archaeology and History), which dealt exclusively with Scandinavia. These included a more general periodical, *Antiquarisk Tidsskrift* (Antiquarian Journal), containing a variety of articles about Scandinavian and international antiquarianism, as well as details of the doings of the Society. The flint sickle was presented by Crown Prince Frederik at the meeting of the Society held in April 1846, and is illustrated in *Antiquarisk Tidsskrift* 1846–48 on p. 8, and again on p. 3 of the German summary at the end (note 1). It is also shown on p. 139 of *Mémoires de la Société des Antiquaires du Nord* 1845–47; this periodical was published in major European languages for the benefit of non-Scandinavian members. Finally, Ellesmere's (1848:37) interpolation of the use of stone tools for circumcision appears to be entirely his own!

Ellesmere's section on pottery vessels (p. 41–42) is re-ordered and revised from Thomsen's (p. 40–42) and furnished with an extra illustration, purloined from a so-far unlocated source. In the section on buildings, Ellesmere adds a substantial preamble (pp. 71–72) on round vs. pointed arches; a discussion of hewing stones (p. 78); and a discussion of Ripen (sic) cathedral (p. 80). His illustration of ship engravings (p. 84) is lifted from Åberg (1842:351, 355; reproduced in *Mémoires de la Société des Antiquaires du Nord* 1840–44:142, 143, 144).

Finally, Ellesmere's book differs from *Ledetraad* in one further respect, of interest because it reflects a major controversy in Scandinavian archaeology at the time. Thomsen discusses runes in *Ledetraad*, illustrating among others the following (p. 74):



read as 'Hiildekinn riki nam', translated as 'Hildegund conquered the kingdom'. He also depicts (ibid.) a so-called bind-rune, combined from several individual runes:



translated as 'Odin'. He does not state where these runes come from; in fact they are from Runamo in southern Sweden.

The Runamo inscription was sometimes thought to record the Battle of Bråvalla Heath, at which King Sigurd Ring of Sweden defeated and killed King Harald Hildetand of Denmark; the battle was regarded as an historical event by historians such as Suhm (1802) which occurred in the later 8th century AD. The Runamo affair is sometimes presented (e.g. by Klindt-Jensen 1975:69) as a simple debate: the 'inscription' was over-confidently deciphered by Magnusen (1841), and then debunked in an early example of critical archaeology by the aspiring Worsaae (1844) as nothing but a series of natural fissures.

In reality the affair was more complex. The indecipherable 'inscription' had long been a source of controversy, and some earlier scholars had already dismissed it as a natural phenomenon (see e.g. the discussion in Nyerup 1806:90–95). To establish once and for all whether it was a genuine inscription, the Royal Danish Academy of Sciences and Letters sent a committee to examine the site in July 1833; the members were the historians Magnusen and Molbech, and the geologist Forchhammer (Magnusen 1841:27ff). Only after lengthy consideration of Forchhammer's drawings did it suddenly dawn on Magnusen on the afternoon of 22nd May 1834 that he could 'decipher' the 'inscription' when he read it from right to left. Final publication was delayed until 1841, but the results were known before this, so Thomsen was able to include parts in *Ledetraad* in 1836; Thomsen's large inscription is depicted piecemeal in Magnusen (1841:293–298), his small one in ibid. (305).

Another scholar who saw the results before publication was the Swedish chemist Berzelius on a visit to Copenhagen in 1836, who then examined the site on his way home. On 15th September 1836 he stated in a paper to the Royal Academy of Letters, History and Antiquities in Stockholm that the 'inscription' was entirely composed of natural fissures. His paper (Berzelius 1838) appeared before the delayed Danish publication, allowing Forchhammer to insert into the latter a brief rebuttal (in Magnusen 1841:43). Thomsen was evidently aware of

Berzelius' reservations, but *Ledetraad* had already appeared; however, the Odin 'bind-rune' is absent from the German *Leitfaden* of 1837, and although the longer 'inscription' is depicted, it is not translated (*Leitfaden* p. 76). Thomsen was thus evidently already distancing himself from Magnusen's translation by 1837.

Sven Nilsson visited Runamo in the summer of 1840. He took a geological hammer to some of the 'runes' and found that below the deepest visible parts of the cuts there were always fine cracks running deeper into the rock. This made it pretty certain that the 'runes' were simply such cracks widened by erosion at the rock surface (Nilsson 1841). In view of all this, Worsaae's 1844 dismissal was not the revolutionary criticism it is often said to be. The Runamo 'inscription' was rapidly discarded; some conventional histories continued for a time to assert the historicity of the Battle of Bråvalla, but without mentioning the inscription (Fabricius 1854:I, 71–75). Ellesmere (1848:85) however neither mentions the battle nor depicts any of the 'runes'.

Ellesmere's book is thus considerably modified from Thomsen's original. Ellesmere felt under no obligation to stick closely to the original, and modified his work as he wished in the light of post-*Ledetraad* developments.

J. J. S. Steenstrup

The following works by Steenstrup have been translated:

- 1837. (Description of a prize-winning essay on peat bogs). *Oversigt over det Kongelige danske Videnskabernes Selskab* 1837:17–19.
- 1839. *Martørven i det nordligste Jylland* [On the sea peat of northernmost Jutland]. *Naturhistorisk Tidsskrift* 2:495–518.
- 1842. *Geognostisk-geologisk undersøgelse af skovmoserne Vidnesdam- og Lillemose i det nordlige Sjælland* [Geognostic-geological investigation of the forest bogs Vidnesdam- and Lillemose in northern Zealand]. *Det Kongelige danske Videnskabernes Selskabs naturvidenskabelige og matematiske Afhandlinger* 9:17–120.

Steenstrup was a natural historian who published on archaeology throughout his life, but whose main work was in zoology. His interest in the present context stems from his early work on bog stratigraphy. In response to a prize offered by the Royal Danish Academy of Sciences and Letters in 1836, he wrote the winning essay on why pine trees (not native to Denmark) nevertheless occur in Danish peat bogs. The 1837 publication is a brief description of this. An extended and reworked version of the essay forms the 1842 publication; in the meantime Steenstrup had considered other peat bogs and had written the 1839 article on some of them.

Steenstrup's major works on peatbogs have never hitherto been translated into English, and he remains a rather shadowy figure known to the anglophone world (if at all) as an opponent of Worsaae in the mid-19th century. The best 19th century description in English of his work was published by Morlot (1861). Steenstrup identified a succession of forest types stratified in his peat bogs, with aspen at the bottom, followed by pine, then oak, then alder – while Denmark throughout the historical period was characterised by beech forest. These successive forest periods we now recognise as the post-glacial forest succession, though glacial ages were not recognised until later in Steenstrup's lifetime.

In the 1837 description there is a categorical statement that human-made artifacts had turned up in the oak period, indicating human presence at least that far back. In the 1839 and 1842 publications Steenstrup is noticeably more cautious, advancing this only as a possibility.

Questions of absolute chronology may have been the reason for this increased caution. Steenstrup was a highly critical bog stratigraphist, fully aware of the potential pitfalls of ascribing stratigraphic contexts to artifacts. He regarded his forest epochs as replacing one another quite slowly, not as the result of geological catastrophes sweeping away a complete forest type. An important discussion in his 1842 monograph (pp. 93–97) tabulates the orientation of each tree trunk in one bog, and depicts these in a figure. Steenstrup concludes that the trees had fallen in various directions at different times, and were not all lying parallel as if a catastrophic flood had flattened them all. A more gradual process of forest replacement must thus have been occurring, and Steenstrup could not envisage less than some two millennia for each of the forest types to climax and be replaced. His oak period – preceding the alder and beech periods – could thus not be less than 4000 or 5000 years in age.

This was a much greater age than historians allowed for the human occupation of Denmark (see above). Thomsen in *Ledetraad* (p. 60) regarded the Danish iron age as beginning around the time of Julius Caesar; it was unclear how far back the stone and bronze ages went, but his overall chronology would have been nothing like 5000 years. Nilsson in 1835 estimated 3000 years. Worsaae in his 1843 book (pp. 9, 108) made a similar estimate; however, he placed the start of the iron age as late as the 8th or 9th century AD (1841:161) and defended this until forced to lengthen it to something like Thomsen's by finds of Roman objects in iron age contexts in Denmark (Worsaae 1849).

This all implied that Steenstrup could hardly expect to find traces of human occupation as far back as 5000 years. Steenstrup was however soon proven correct; Morlot (1861:309) reports him finding stone tools as far back as the pine layer, which preceded even that of the oak. Steenstrup's environmental chronology was a remarkable achievement, and its linking to Thomsen's artifactual chronology was of the greatest importance. It is remarkable that Steenstrup's work has never been translated before.

Sven Nilsson

The following works by Nilsson have been translated:

– 1835. Utkast til jagtens och fiskets historia på Skandinavien [Essay on the history of hunting and fishing in Scandinavia]. In *Skandinaviska Fauna, Föglarna* [Fauna of Scandinavia, Birds], revised edition, by S. Nilsson, xxi–lii. Lund: Berlingska.

– 1838–43. *Skandinaviska Nordens Ur-Invånare, ett Försök i Komparativa Ethnografien och ett Bidrag till Menniskosläktets Utvecklings-Historia* [The original Inhabitants of the Scandinavian North. An Essay in Comparative Ethnography and a Contribution to the History of the Development of Humankind]. Lund: Berlingska.

The first is part of the introduction to Nilsson's major work on birds, and uses Thomsen's (then not fully published) notion that stone tools were the earliest cultural remains. These are examined and linked to a hunting, fishing and gathering way of life, regarded by Nilsson as the earliest of four economic forms, succeeded by nomadic herding, then by settled agriculture, and finally by the modern state. This four-fold typology had a long history in European thought, deriving ultimately from Scottish and French writers of the mid-18th century (Meek 1976).

Nilsson's breadth is often not appreciated. In addition to his wide ethnographic and archaeological perspective, he also prompted the anatomist Retzius to examine crania, and it was Retzius who first developed the brachycephalic and dolichocephalic categorisation (Retzius 1843).

Nilsson's 1838–43 book seems not so much to have been written in linear form, as to have grown organically. It originally appeared in four sections. Nilsson states (pp. ii–iii) that he will consider four themes: first, stone tools, archaeological and ethnographic; second, skulls ancient and modern; third, ancient burial structures and contemporary ethnographic dwellings; and fourth, a discussion of early legends to see whether they have any historical value. The four published sections are however not the same as the four themes considered. Section 1, published in 1838, contains themes 1 and 2; these get separate chapters – each separately paginated, chapter 1 on stone tools being pp. 1–64, chapter 2 on skulls being pp. 1–16. Section 2, also 1838, contains theme 3, forming chapter 3, pp. 1–13. Section 3, published in 1839, contains theme 4 in chapter 4, pp. 1–32. Section 4, from 1843, contains the same foreword mentioning the four themes – but adds two supplementary chapters: 5 is a concluding overview, while 6 deals with Cimbrian immigrants who introduced agriculture. The 1843 volume republishes the first three sections as well, but some of the chapters have been expanded. Chapter 1 is now paginated 1–96, containing more on stone and bone tools; an extended chapter 3 is now paginated 1–31; and chapter 4 is extended to pp. 1–56. The earlier portions of these chapters however remain unchanged from their 1838 or 1839 versions; corrections listed in an erratum slip in Section 3 (1839) have not even been included in the 1843 text.

This composite book was Nilsson's principal contribution to the emergent chronologies of the 1830s and 1840s, but it is quite different to the version that appeared in English much later. Nilsson produced a second edition in 1866 (thankfully now all paginated consecutively). The first four chapters have a few minor changes, a few paragraphs being rewritten in chapters 3 and 4. Chapter 5 has an addendum on p. 172, stating that there was some agriculture in the stone age. Chapter 6 is however completely rewritten: immigrants (no longer Cimbrian) are described as bringing bronze weapons and a new religion. Much use is made of Mediterranean archaeology, and on p. 196 there appear figures comparing the ground plans of Giganteja temple on Malta and the New Grange passage grave in Ireland. In 1862–64 Nilsson had produced volume 2 of *Skandinaviska Nordens Ur-Invånare*, dealing with the bronze age, in which he argued that Phoenicians were responsible, and it is this that appears, modified and abbreviated, in chapter 6 of the 1866 book.

The English version appeared in 1868, under the title *The Primitive Inhabitants of Scandinavia*. It is described as a third edition, translated from Nilsson's manuscript (this edition however never appeared in Swedish), and edited by Sir John Lubbock. The French translation of 1868 is also described as being from 'le manuscrit préparé par l'auteur pour une nouvelle édition' (Nilsson 1868:iii). Just how much this differed even from the 1866 Swedish edition can be seen from a comparison of the chapter headings and divisions:

1866 Swedish edition:	1868 English edition:
<p>1. Comparison between the implements of savage peoples and the antiquities of stone, animal bone etc unearthed here</p> <ul style="list-style-type: none"> – 1. chisels and axes – 2. harpoons, arrows, knives and spears – 3. fish hooks and fishing weights 	<p>1. Comparison between the implements of savage nations and the antiquities of stone and of bone found in Scandinavia</p> <ul style="list-style-type: none"> – 1. tools by means of which other tools and weapons of stone were made – 2. implements for hunting and fishing

<ul style="list-style-type: none"> - 4. tools with which other tools were made - 5. antiquities without shaftholes but which fit into none of the previous categories - 6. tools with shaftholes - 7. antiquities of stone, amber, bone, glass etc (mainly beads) perforated with a round hole that was not however a shafthole - 8. vessels of fired clay or stone - 9. tools that were worn or broken during use - 10. tools that were converted into other tools - 11. overview of the whole collection and attempt to produce a definite result therefrom - overview - supplement (added in 1843 to the 1838 chapter, 22 pages in the 1866 version) 	<ul style="list-style-type: none"> - 3. carpenter's or mechanic's tools, with their edges lying across one end <ul style="list-style-type: none"> I. implements without a hole for the handle II. implements provided with a hole for the handle - 4. some forms of stone implements which cannot satisfactorily be classed amongst any of the foregoing divisions - 5. ornaments - 6. vessels of burnt clay or stone - 7. implements which have become worn out or broken through use - 8. implements which have been transformed into implements of another kind - appendix (1 page only)
	2. Retrospect of the whole collection, and an attempt to draw from it a positive result
2. Comparison between the skulls found in our ancient graves, and those belonging to living tribes	3. A comparison between the ancient crania found in Scandinavia and those belonging to the races now living there
3. Comparison between the ancient funerary chambers in which stone tools are found here, and the dwellings of contemporary savages	4. Sepulchral monuments belonging to the stone age – comparison between these and the dwelling-houses of the Esquimaux
	5. Of the manner in which the Aborigines made use of their weapons in the chase and in war
4. Comparison between travellers' descriptions of various undeveloped tribes or the followers of various religions' ideas of each other, and the information in our ancient legends about our heathen ancestors' ideas about dwarves, trolls, giants, elves etc	6. The stone age of different nations. – The source of tradition. – dwarfs, giants, goblins, etc., were originally people of different tribes and religion
5. Concluding overview of the way of life and level of development of the savages living here in ancient times	7. On the probable condition of Scandinavia at the arrival of the first people
6. Essay delineating a foreign people who in ancient times occupied southern and western Sweden, introduced weapons etc. of bronze and disseminated their own religion	

What is available in English and French thus differs substantially from Nilsson's 1843 book. Some sections are close translations, while others are entirely new. Even the English title may reveal part of Lubbock's agenda – a subject for future examination will be the word 'primitive'. Nilsson's expression *Ur-Invånare* means 'original inhabitants' or 'primeval inhabitants' and does not necessarily contain the pejorative and brutish sentiments sometimes later conveyed by 'primitive'; Lubbock, it must be remembered, produced his English version after the acceptance of biological evolution.

J. J. A. Worsaae

The following work by Worsaae has been translated:

– 1843. *Danmarks Oldtid oplyst ved Oldsager og Gravhøje* [Denmark's Ancient Past revealed by Antiquities and Burial Mounds]. Copenhagen: Selskabet for Trykkefrihedens rette Brug.

This is the clearest early synthesis of the Three Age System, and also the best translated, appearing in English under the title *The Primeval Antiquities of Denmark* in 1849. W. J. Thoms, the translator, stuck closely to Worsaae's text; he added much new material, but in footnotes easily distinguishable from Worsaae's original text.

Much is claimed for this book, some of it justifiably so. Worsaae's influence was undoubtedly enormous, and his subsequent work did much to shape the archaeology Europeans still live with. While his energy and efficiency cannot be doubted, his originality in the 1840s should not however be over-emphasised. We have seen above that his 1844 denunciation of the Runamo inscription was not new, but followed criticisms by Berzelius and Nilsson. His 1843 book is the first to consider funerary monuments period by period, in separate chapters, and he was later to write that 'in *Danmarks Oldtid...* (Copenhagen 1843) I sought to place the ancient monuments of Denmark into a scientific system for the first time' (Worsaae 1847:381). However, Thomsen was fully aware of the periodisation of the funerary monuments; this emerges clearly from his discussions in *Ledetraad* of the monuments on pp. 29–32, and of the periods themselves on pp. 57–63. Nilsson consistently refers to passage graves as the contexts from which the earliest tools, those of stone, were recovered.

Worsaae is often credited with confirming Thomsen's scheme by stratigraphic means; but as early as 1837 Thomsen had already noted details of a burial mound containing such stratigraphic proof (Thomsen 1838–39:165–6). Details of a similar find from the Duchy of Lauenborg were read to the meeting of the Royal Society of Northern Antiquaries on 30 January 1840 (*Mémoires de la Société Royal des Antiquaires du Nord* 1840–44:17–18). When Worsaae published a similar case in 1841, he noted that such stratigraphic circumstances had already been made quite often (1841:145).

We have seen above that Thomsen never intended *Ledetraad* as the main publication of his periodisation. No such further publication by Thomsen ever appeared. We can only speculate that Worsaae's *Danmarks Oldtid* was the book that Thomsen should have written.

Conclusion

The founding documents of the Three Age System, when available in English at all, are in translations of uneven quality that have somewhat obscured their nature and content. It is the intention of the present project (Rowley-Conwy in prep.) to remedy this and discuss their background in detail. Many Scandinavian scholars have studied aspects of the origin of the

System in great detail for many years, and can justly feel proud of their efforts. Rather little of this has appeared in English, however, so anglophone knowledge remains partial. It is hoped that the current project will go some way towards rectifying this.

Note

1. The international pre-eminence of the Royal Society of Northern Antiquaries in these years is something which has largely been forgotten. *Antiquarisk Tidsskrift* contains contemporary membership lists – in Icelandic and Danish – and the sums members donated to the Society, and these are an object of study in themselves. In this same 1846–48 issue, the list for 1st January 1849 includes no fewer than 31 members of royalty. Christian VIII was succeeded in 1848 by Frederik VI, each of whom donated 300 rixdollars (according to Ferrall and Repp's 1845 Danish-English dictionary, 1 rixdollar was worth 2s 3d). This was however exceeded by the donations of two other crowned heads, 400 rixdollars coming from both NIKOLAS I, KEISARI I RUSSLANDI, and, even more remarkably, MOHAMMED SHAH, SHAHEN SHAH, KONUNGR I PERSILANDI. On the next page, in appropriately smaller print, comes ELLESMERE, (Francis lávarðr Egerton, jarl), F. G. S., Hon. D. C. L. í Öxnafurðu; a few lines higher up is BOUCHER DE PERTHES (J.), forseti visinda-félagins í Abbeville; on the next page are MANOKJEE CURSETJEE (Esq), Parsiskr bókfærðingr, í Bombay, and METTERNICH (C. fursti), ríkis-kanseler Austríkis-keisara, í Vinarborg. Each of these donated 100 rixdollars.

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